AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method of evaluating a turbine component, the method comprising:

obtaining data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

calculating the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

wherein the obtained data relating to surface conditions at each of the different surface locations is ~~one or more of the following types of~~ data relating to~~:~~ surface roughness~~, surface condition type, and severity of surface condition~~.

2. (currently amended) A method of evaluating a turbine component, the method comprising:

obtaining data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

calculating the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

~~A method of claim 1~~ wherein calculating the total profile efficiency of the turbine component includes calculating the local profile efficiency loss percentage for each of the surface conditions at the different surface locations.

3. (original) A method of claim 2 wherein calculating the total profile efficiency of the turbine component further includes calculating an average of the local profile efficiency loss percentages, each of the local efficiency loss percentages being weighted by respective predetermined weight factors.

4. (currently amended) A method of evaluating a turbine component, the method comprising:

obtaining data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

calculating the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

~~A method of claim 1~~ wherein calculating the total profile efficiency of the turbine component includes calculating respective local profile efficiency loss percentages for each of the surface conditions at a plurality of sub-areas of at least one of the different surface locations.

5. (original) A method of claim 4 wherein calculating the total profile efficiency of the turbine component further includes calculating an average of the local profile efficiency loss percentages, each of the local efficiency loss percentages being weighted by respective predetermined weight factors.

6. (previously presented) A method of evaluating a turbine component, the method comprising:

obtaining data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

calculating the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

wherein calculating the total profile efficiency loss for the turbine component includes calculating a sand grain roughness number (Ks) for each surface condition at the different surface locations.

7. (previously presented) A method of evaluating a turbine component, the method comprising:

obtaining data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

calculating the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

wherein calculating the total profile efficiency loss for the turbine component includes calculating a sand grain roughness number (Ks) for each surface condition at a plurality of sub-areas of at least one of the different surface locations.

8. (original) A method of claim 2 wherein each of the local profile efficiency loss percentages for each of the surface conditions at the respective surface locations is calculated based on a sand grain roughness number (Ks) determined for that surface condition.

9. (original) A method of claim 4 wherein each of the local profile efficiency loss percentages for each of the surface conditions at the respective sub-areas is calculated based on a sand grain roughness number (Ks) determined for that surface condition.

10. (currently amended) A method of claim 1 wherein the obtained data relating to surface conditions at each of the different surface locations further includes data relating to a condition type and a severity of condition of each of the surface conditions, and calculating the total profile efficiency loss for the turbine component includes determining a surface roughness factor for each surface condition based on the condition type and the severity of the condition obtained for that surface condition.

11. (original) A method of claim 4 wherein obtaining the data includes obtaining data relating to a condition type and a severity of condition for each of the surface conditions at the sub-areas, and calculating the total profile efficiency loss for the turbine component includes determining a surface roughness factor for each of the surface conditions at each of the sub-areas based on the condition type and the severity of the condition obtained for that surface condition.

12. (canceled)

13. (original) A method of claim 1 wherein the turbine component is a nozzle and each of the surface locations of the nozzle is one of following: admission

suction surface, admission pressure surface, discharge suction surface and discharge pressure surface.

14. (original) A method of claim 1 wherein the turbine component is a bucket and each of the surface locations of the bucket is one of following: admission suction surface, admission pressure surface, discharge suction surface and discharge pressure surface.

15. (currently amended) A computerized system for evaluating a turbine component, the system comprising:

a data input that receives data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

a processor that calculates the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

wherein the received data relating to surface conditions at each of the different surface locations is ~~one or more of the following types of~~ data relating to~~:~~ surface roughness, surface condition type, and severity of the surface condition.

16. (currently amended) A computerized system for evaluating a turbine component, the system comprising:

a data input that receives data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

a processor that calculates the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

~~A system of claim 15~~ wherein the processor calculates the total profile efficiency of the turbine component by at least calculating the local profile efficiency loss percentage for each of the surface conditions at the different surface locations.

17. (original) A system of claim 16 wherein the processor calculates the total profile efficiency of the turbine component by at least calculating an average of the local profile efficiency loss percentages, each of the local efficiency loss percentages being weighted by respective predetermined weight factors.

18. (currently amended) A computerized system for evaluating a turbine component, the system comprising:

a data input that receives data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

a processor that calculates the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

~~A system of claim 15~~ wherein the processor calculates the total profile efficiency of the turbine component by at least calculating respective local profile efficiency loss percentages for each of the surface conditions at a plurality of sub-areas of at least one of the different surface locations.

19. (original) A system of claim 18 wherein the processor calculates the total profile efficiency of the turbine component by at least calculating an average of the local profile efficiency loss percentages, each of the local efficiency loss percentages being weighted by respective predetermined weight factors.

20. (previously presented) A computerized system for evaluating a turbine component, the system comprising:

a data input that receives data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

a processor that calculates the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

wherein the processor calculates the total profile efficiency loss for the turbine component by at least calculating a sand grain roughness number (Ks) for each surface condition at the different surface locations.

21. (previously presented) A computerized system for evaluating a turbine component, the system comprising:

a data input that receives data relating to respective surface conditions at a plurality of different surface locations of the turbine component; and

a processor that calculates the total profile efficiency loss for the turbine component based on the data relating to the respective surface conditions at the different surface locations;

wherein the processor calculates the total profile efficiency loss for the turbine component by at least calculating a sand grain roughness number (Ks) for each surface condition at a plurality of sub-areas of at least one of the different surface locations.

22. (original) A system of claim 16 wherein each of the local profile efficiency loss percentages for each of the surface conditions at the respective surface locations is calculated by the processor based on a sand grain roughness number (Ks) determined for that surface condition.

23. (original) A system of claim 18 wherein each of the local profile efficiency loss percentages for each of the surface conditions at the respective sub-areas is calculated by the processor based on a sand grain roughness number (Ks) determined for that surface condition.

24. (currently amended) A system of claim 15 wherein the received data relating to surface conditions at each of the different surface locations further includes data relating to a condition type and a severity of condition of each of the surface conditions, and the processor calculates the total profile efficiency loss for the turbine component by at least determining a surface roughness factor for each surface condition based on the condition type and the severity of the condition obtained for that surface condition.

25. (original) A system of claim 18 wherein the received data includes data relating to a condition type and a severity of condition for each of the surface conditions at the sub-areas, and the processor calculates the total profile efficiency loss for the turbine component by at least determining a surface roughness factor for each of the surface conditions at each of the sub-areas based on the condition type and the severity of the condition obtained for that surface condition.

26. (canceled)

27. (original) A system of claim 15 wherein the turbine component is a nozzle and each of the surface locations of the nozzle is one of following: admission suction surface, admission pressure surface, discharge suction surface and discharge pressure surface.

28. (original) A system of claim 15 wherein the turbine component is a bucket and each of the surface locations of the bucket is one of following: admission suction surface, admission pressure surface, discharge suction surface and discharge pressure surface.